

**AMWG HBC ad hoc group meeting
April 22, 2003, Phoenix**

Attendees

See attachment #1.

1 – Review of GCMRC Status and Trend document (Attachment#2)

New information contained in Figures 6 and 7, depicting various formulations of the Supertag and Age Specific Mark Recapture monthly and annual models. Figure 6 shows relatively stable recruitment in HBC since 1992, but at a lower level than the late 1970's and early 1980's. The dispersion of age 2+ recruitment estimates in Figure 6 is a result of model variability in cohort survivability with a limited number of years of subsequent observation. If a management action were implemented intending to improve recruitment of HBC, a large improvement in recruitment would be required to detect a change in recruitment after a few years (rough estimate by Coggins, perhaps shows the need for a power analysis). Figure 7 indicates that recruitment would have to double in order for the current population estimate to stabilize. Two competing hypotheses for observational models contained within the Annual and Monthly ASMR stock assessment models result in differing age 4+ population trajectories and terminal abundances. These competing hypotheses center around the age and year specific variability in vulnerability to sampling. Assuming that there is little variability in vulnerability of fish to sampling over time and age results in higher mortality estimates and lower terminal abundance. Assuming high variability in vulnerability over age and time results in lower mortality estimates and higher terminal abundance estimates. An easy way to think about this is that allowing high variability in vulnerability essentially allows the model to say that there is a large proportion of fish that are not vulnerable to sampling in any give year (i.e. skip spawning).

Additional sampling required to improve the population estimates may have a negative effect on HBC as a result of sampling and handling. Tom Czapla reported that by the end of 2004, the FWS may have sufficient information to determine the first reliable point population estimates required by the Recovery Goals. Suggestion to move forward with radio tracking experiments using Willow Beach fish to understand (1) effects of sampling timing and location on population estimates and (2)

Need to understand what methodology FWS will accept for producing population estimates, encouraging uniformity between Upper and Lower Basin efforts. Also need to refine the estimates, adding error bars to point and trend estimates to assist in future analysis of the effectiveness of management actions.

2 – Review of draft Comprehensive Strategy document prepared by Rich Valdez

Need to have outside groups review draft proposals to increase interaction and communication between groups. Need ad hoc group to review proposals to evaluate effectiveness of proposals in meeting the intent of the comprehensive strategy. Conclusion was to have the strategy in good shape to send to the AMWG, then after AMWG comment send to other groups for review (e.g., UCRIP, MSCP, RIPS WG, Colo

R FWL Council, LCRMOM, Tribes). There is significant overlap between programs in terms of participation on the AWMG ad hoc group.

The ad hoc group identified which Recovery Goal threats each of the project proposal fit within, revising Table 1 of Rich Valdez' draft strategy document (page 5 of the draft document). See attachment #3.

3 – Discussion about May AMWG Presentation

Concern about time available for review of project proposals and development of integrated strategy. Entire package not likely to be ready for mailing by April 30. Recommended distribution of GCMRC status report, Valdez draft strategy report, and project proposals as informational items to facilitate discussion at the May AMWG meeting. Comments and discussion from the AMWG will be solicited at the May AMWG meeting.

4 – Assignments

- => 1 - FWS will develop letter from the AMWG to the other groups identified above inviting them to attend the May 29 AMWG meeting. Sam Spiller will draft cover memo from the HBC ad hoc group to the AMWG describing the ad hoc group's progress, expectations for the May AMWG meeting, and the contents of the AMWG mailing packet.
- => 2 - An attempt will be made to develop a flow chart illustrating how the project tasks relate to each other or occur in sequence to each other.
- => 3 - **Comments on how projects relate to each other or are sequenced should be sent to Randy Peterson by COB Wednesday April 23. He will send straw man of these relationships out to the group by COB Thursday (PDF format).**
- => 4 - Rob Simmonds (RIPSWG), Bill Davis (MSCP), and Tom Czapla (UCRIP) will draft paragraphs for the Valdez draft strategy document describing these various programs. Due by COB Monday April 28.
- => 5 - **Comments on proposals should be sent to the authors by COB Wednesday April 23.**

Conference call **Friday April 25, 2003 at 10:30 am MDT**, discussing project proposals and addition of language to the Valdez document to prepare for mailing to the AMWG. Linda Whetton will send out conference call details. Next ad hoc meeting **May 6, 2003 at 9:30 am** at ADWR (4th floor, Director's conference room) to discuss proposals, sequencing, and prioritization.

Eventually, the ad hoc group recommendation should include prioritization and addressing of budget issue. The sense of the ad hoc group is that a final package can be ready for mailing to the AMWG 30 days prior to the July meeting.